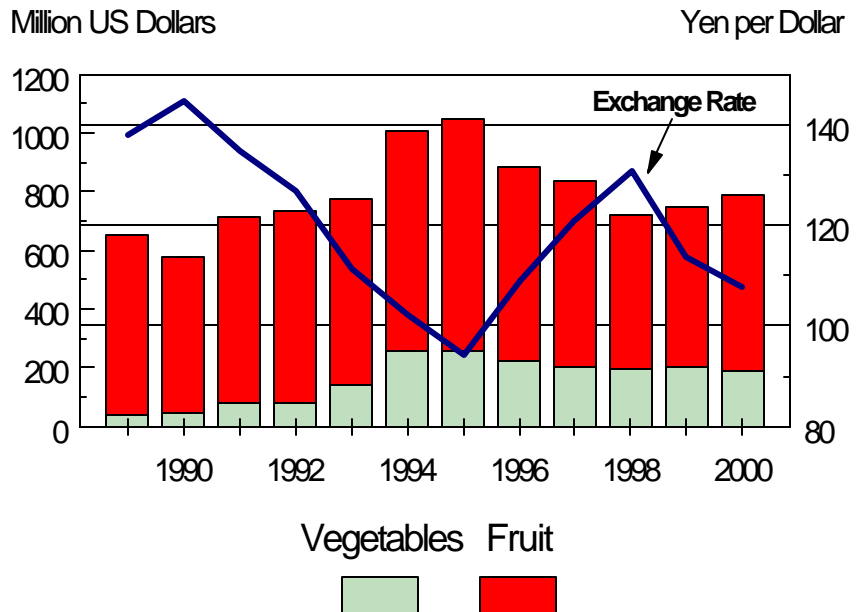


Exchange Rate Influences Japan's Horticultural Imports from the United States

Over the past twelve years, Japan's imports of fresh fruit and vegetables from the United States have responded strongly to the value of the Japanese yen in relation to the dollar. As the yen began to appreciate against the dollar in the first half of the 1990s, Japan's imports of U.S. horticultural products increased. Japanese consumers, enjoying increased purchasing power in dollars, responded by purchasing more from the United States. Then, starting in 1995, the yen began to lose value against the dollar. This depreciation caused Japan to shift its consumption away from the more expensive U.S. product.

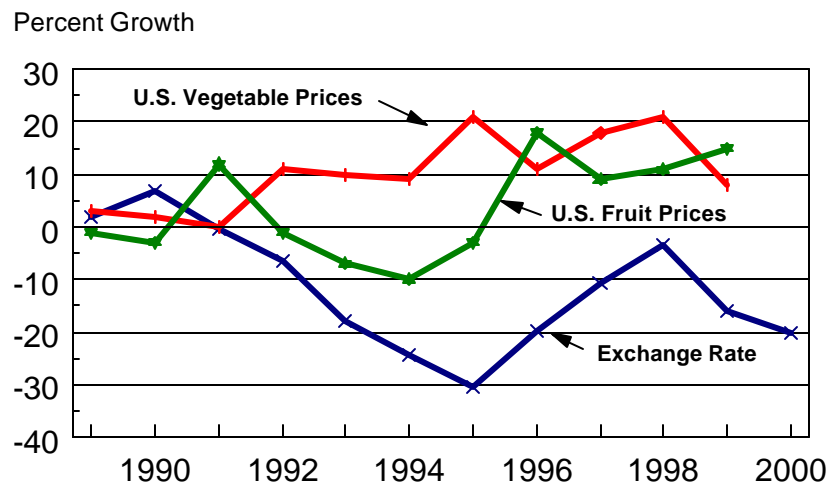
Japan economic growth over the past decade has been negligible, while real wages have increased as nominal wages have grown faster than consumer prices. There is little reason to expect an income-driven increase in food consumption per capita as consumer sentiment in Japan's economy remains weak. In general, increased disposable incomes tend to lead consumers to demand value-added products of higher

Japan's Fresh Vegetable and Fruit Imports from the U.S. and the Yen/Dollar Exchange Rate



Source: World Trade Atlas, IMF

Percent Growth of Yen/Dollar Exchange Rate and U.S. Producer Prices for Vegetables and Fruits Since 1989-91 1/



1/ Base Year is Average of 1989-91

Source: IMF, NASS

quality. Food expenditures are not expected to increase due to demographic pressures, as Japan's population growth over the past decade has been stagnant. The combination of these factors means that price is a key determinant of Japan's horticultural imports from the United States.

U.S. producer prices for vegetables and fruits increased 8 and 15 percent, respectively, from the beginning of the decade to 1999. This increase in U.S. prices was offset by the strong yen in the mid-1990s. Japanese consumers actually noticed a fall in the price of imported U.S. horticultural products as the appreciation of the yen outpaced the rise in U.S. producer prices. Taking advantage of the lower yen-denominated prices, Japan's imports from the United States grew rapidly in 1994 and 1995.

Then, in the latter half of the decade, the yen began to depreciate against the dollar. The weakening yen, combined with relatively stable U.S. producer prices during this period, meant that the yen-denominated price of imported U.S. horticulture rose. Higher prices caused Japan to decrease its level of imports from the United States. The East Asian financial crisis in 1997/98 only exacerbated this trend. Japan's real gross domestic product (GDP) contracted by 2.5 percent in 1998 causing consumption and horticultural imports to fall.

For some commodities, such as citrus fruits and frozen french fries, higher prices of U.S. imports allowed lower-priced competitors to increase their access to Japan's import market. The degree to which competitors have gained access to Japan's import market will lessen the responsiveness of consumers to future appreciations of the yen against the dollar.

Since the financial troubles of 1998, Japan's imports from the United States have rebounded as the yen became stronger against the dollar. Should the yen continue its strength, one can expect Japan to continue to import more U.S. horticultural products. This appreciation of the yen, however, is threatened by an expansionary monetary policy as Japan attempts to revive economic growth. If Japan's monetary policy causes the yen to fall sharply against the dollar, Japan's imports from the United States will suffer.

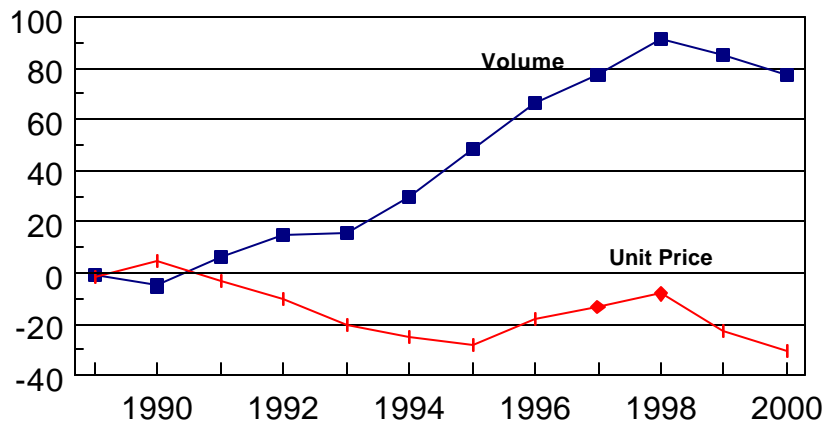
Japan's Imports of U.S. Frozen Potato Fries Face Canadian Competition

Japan's imports of U.S. frozen potato fries nearly doubled and then leveled off over the past decade; from 103,923 metric tons in Calendar Year (CY) 1990 to 194,314 tons in CY 2000. This increased demand is primarily due to the growing popularity of fast food hamburger chains. McDonald's, Japan's largest fast food chain, currently has 3,400 stores nation-wide and is expanding at a pace of 300-400 new stores annually according to FAS attaché reports. Japan's sales of "ready-to-eat" and private brand potato fries are also increasing, accounting for an estimated 13 percent of total Japanese consumption of frozen potato fries.

While the United States held more than 80 percent of the import market for the past decade, shipments from Canada have increased rapidly in recent years. Over the two-year period from 1998 to 2000, Japan's imports of Canadian potato fries increased more than 60 percent from 20,006 tons to 32,080 tons. This increase is attributed to falling Canadian potato fry prices, from \$1.06 per kilogram in 1998 to \$0.91 in 2000. Increased competition from Canadian fries has bid down the prices of

imported U.S. fries; in 2000, the price of imported U.S. fries was \$0.89. Since Japan's imported potato fry market is currently stable, with annual imports of roughly \$270 million, continued price competition from Canada will continue to pressure the United States' market share.

Japan's Imports of U.S. Frozen Potato Fries:
Growth of Volume and Unit Price in Yen Since 1989-91 /1
 Percent Growth



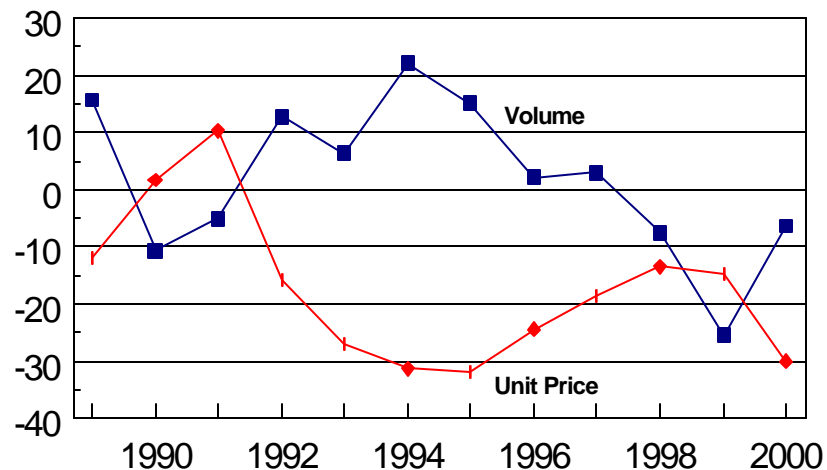
1/ Base Year is Average of 1989-91

Source: World Trade Atlas, IMF

Gradual U.S. Decline in Japan's Citrus Market

Since 1989, Japan's imports of U.S. citrus fruits have declined both absolutely and relatively. Citrus fruit imports from the United States totaled \$489.3 million in 1989. This value reached a high of \$552.6 million in 1995 before falling to \$403.5 million in 2000. The value of imported U.S. citrus peaked in 1995 due to an abnormally strong yen with respect to the dollar, which made U.S. products cheaper for the Japanese. As the

Japan's Imports of U.S. Citrus Fruits:
Percent Growth of Volume and Unit Price in Yen Since 1989-91 /1
 Percent Growth



1/ Base Year is Average of 1989-91

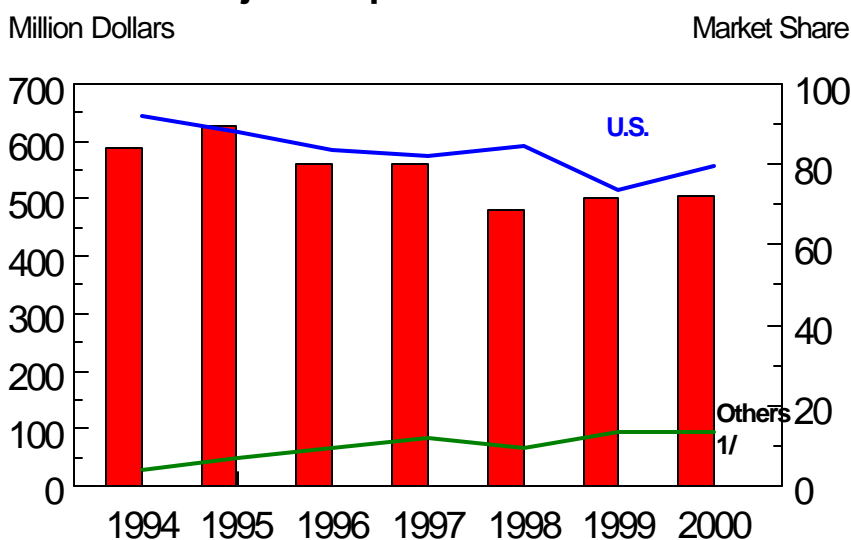
Source: World Trade Atlas, IMF

decade progressed, the yen depreciated against the dollar causing the price of U.S. citrus to rise and the volume of U.S. citrus sales to fall.

The U.S. market share of Japan's citrus imports declined to 80 percent in 2000 from a high of 98 percent in 1989. Increased imports from South Africa, Israel, and Chile account for the United States relative decline. Japan maintains a high tariff rate on oranges during the December to May period when domestic mikan oranges are marketed. This protective tariff limits imports of U.S. oranges shipped during that period and grants an advantage to South African and Australian oranges which enter during the off-season. The favorable tariff treatment, competitive pricing, and improved quality contribute to the success of these competitors.

The decline in grapefruit imports from the United States mimics the general decline in fresh citrus imports. Grapefruit accounts for about half of all citrus imports from the United States. Japan consistently imports approximately 270,000 tons per year. In the early 1990s, the United States supplied virtually all of these imports. As the decade

Japan's Imported Citrus Market: Total Citrus Imports and Major Competitors' Market Shares

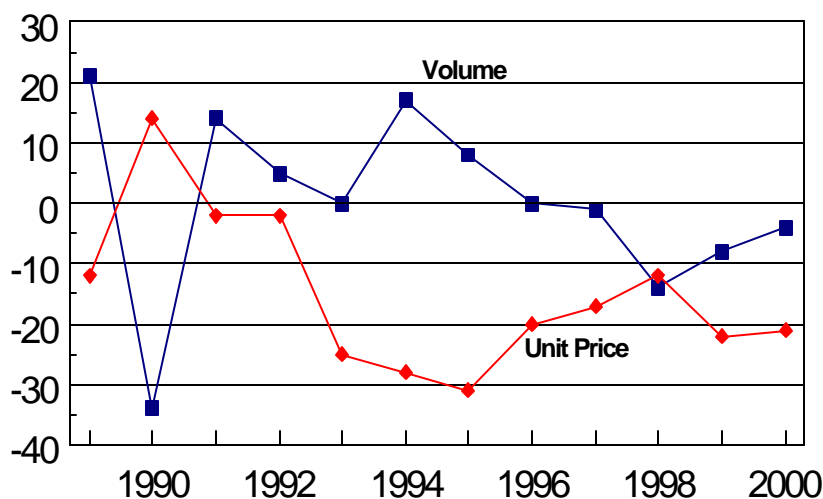


1/ Combined Shares of South Africa, Chile, and Israel

Source: World Trade Atlas

Japan's Imports of U.S. Grapefruit

Percent Growth of Volume and Unit Price in Yen Since 1989-91 1/
Percent Growth



1/ Base Year is Average of 1989-1991

Source: World Trade Atlas, IMF

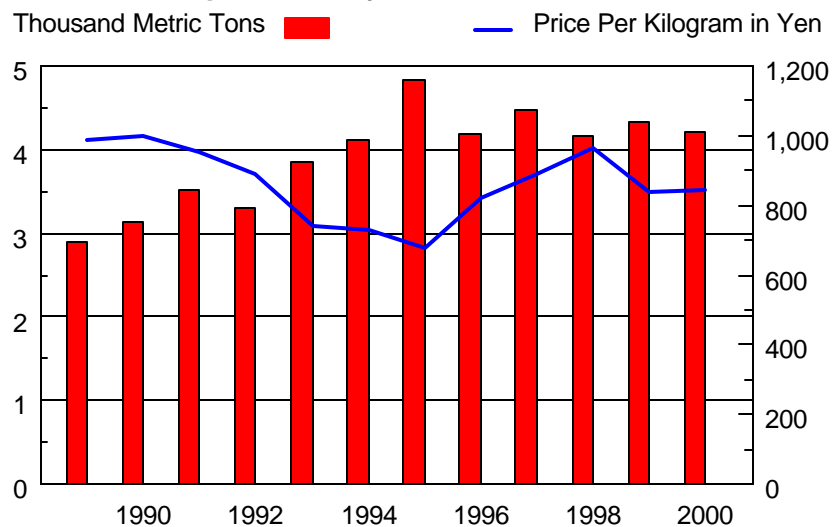
progressed, Japan increasingly looked to South Africa and Israel for imported grapefruit. Given the limited demand for imported grapefruit, this competition served to increase price competition. In 2000, grapefruit imports from South Africa and Israel were priced at \$0.73 and \$0.94 per kilogram, respectively, in comparison to the U.S. price of \$0.97.

Increased Role of Imported Chinese Frozen Strawberries

The improved quality of Chinese strawberries and competitive prices are encouraging Japan's food processors to shift away from the U.S. product in favor of imports from China. After reaching a high in 1994 of 16,644 tons, Japan's imports of U.S. frozen strawberries declined to 11,219 tons in 2000. During this same period, total imports declined by only 634 tons causing the U.S. market share to fall from 64 percent to 52 percent. Traditionally Japan's jam, yogurt, and juice manufacturers have preferred the U.S. product because of its reputation for high quality. However, due to growing price competition among Japan's food processors, buyers have shifted to lower-cost products. For the period between January and August 2000, the average import price of Chinese frozen strawberries was \$1.04 per kilogram, almost half that of the U.S. product at \$2.07 per kilogram.

Japan's Imports of Fresh Strawberries from the United States
Import Quantity and Unit Price in Yen

Imported fresh strawberries from the United States have fared better than the frozen product. Since 1989, Japan's imports of U.S. fresh strawberries have grown 45 percent to 4,197 tons in 2000. The unit price of these imports in yen greatly influenced the quantity demanded. The dollar-denominated unit price remained relatively constant at \$7.25 per kilogram. However, favorable exchange rates made the product more affordable to Japanese consumers. Japanese



Source: World Trade Atlas, IMF

consumers demanded more U.S.-produced strawberries when the yen appreciated, thus lowering the yen-denominated price. When the yen depreciated, imports of U.S. strawberries became more expensive causing Japanese consumers to shift their consumption away from the U.S. product.

United States Maintains Lock on Japan's Shelled Almond Import Market

Since 1989, the United States has supplied virtually all of Japan's shelled almond imports. In 2000, the U.S. market share stood at 97 percent. Lacking competition, the level of Japan's imports from the United States is primarily driven by fluctuations in yen-denominated prices.

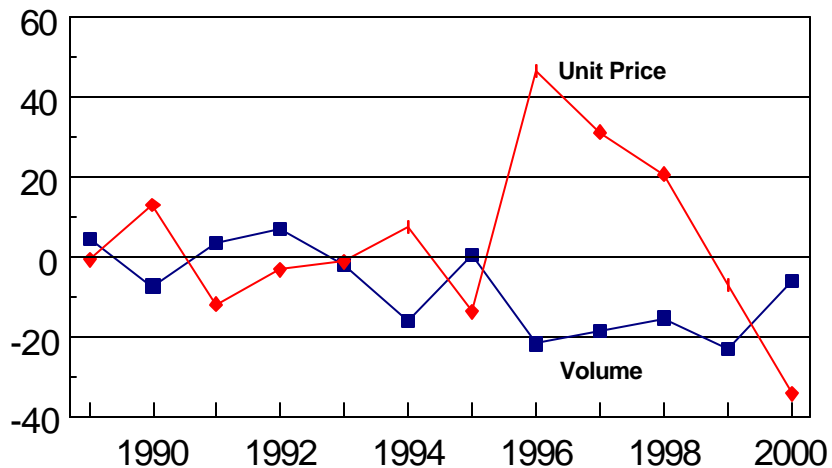
During the period between 1989 and 1995, the relationship between the import volume of U.S. almonds and their unit price in yen was quite predictable. Japan imported more when prices were low and less when prices were high.

However in 1996, this relationship changed as the unit price of U.S. shelled almonds increased substantially. The demand response associated with the price increase is weaker than expected due to consumers' insensitivity to price increases. In 1996, the yen-denominated unit price increased 70 percent over the previous year due to a 50-percent drop U.S. production the year before; however, demand fell by only 22 percent.

The increased unit price in yen of U.S. shelled almonds had two results: (1) Japan reduced its total volume of almond imports from the world and (2) other suppliers, such as Australia and Spain, entered the market as low-priced competitors. Japan's total volume of shelled almond imports fell from 22,569 tons in 1995 to 17,970 the following year. This reduced level of imports continued through the end of the decade. The Japanese also shifted almond imports from the United States to Australia and Spain, causing the United States to lose market share slightly.

(Prepared by Mathew Gerard with support from Robert Knapp.)

Japan's Imports of U.S. Shelled Almonds:
Percent Growth of Volume and Unit Price in Yen Since 1989-91 1/
Percent Growth



1/ Base Year is Average of 1989-91

Source: World Trade Atlas, IMF